UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 500
DENVER, CO 80202-2466

Ref: EPR-ER

Progress Pollution Report
BEAVER WOOD PRODUCTS
Columbia Falls, Flathead County, MT

I. HEADING

Date:	**10/3/02**
Site Name:	Beaver Wood Products
From:	Sam Borries, OSC
To:	**Kevin Mould, EPA Headquarters**
POLREP No.:	**POLREP #5**

II. BACKGROUND

Site No.:	L4
Response Authority:	CERCLA
NPL Status:	Non-NPL Site
Action Memorandum:	07/17/00
Amended Action Memo:	09/05/00
Start Date :	08/28/00
Completion Date:	TBD

III. SITE INFORMATION

A. Incident Category

Time Critical, Fund-Lead, Removal Action

B. Site Description

1. Site Location

The Site is located on U.S. Highway 2E, approximately two miles east of Columbia Falls in Section 15, T.30N., R.20W., in Flathead County, Montana. It is bounded on the north by Highway 2, on the west by a residential development (Columbia Heights), on the south by electrical substations, on the northeast by an open storage yard, and on the immediate southeast by residential property. The Site is a wood treatment facility and consists of an office building, process building, garage, storage shed, portable outhouse, two aboveground storage tanks, and staging areas for green wood and peeled posts. Active wood treatment operations are no longer occurring.

2. Description of Threat

Pentachlorophenol (PCP), low-level dioxin, and associated/used total petroleum hydrocarbons (TPH) have contaminated the soils around the dip tanks, in the wood drying/storage areas of a former post and pole treatment area, and other dust suppressant areas. A Removal Action

was conducted at the Site by the Potentially Responsible Parties (PRPs) in 1991 when they erected a fence around the contaminated areas of the Site and placed six inches of gravel over and around the stained areas of the Site. At this time the fence is no longer present and the gravel capping has deteriorated to such an extent that there is substantial endangerment to employees/trespassers and the surrounding environment, including the immediate residential area to the west of the Site. PCP has been detected in monitoring wells.

C. Site Evaluation

In early spring 1999, the Montana Department of Environmental Quality (MDEQ) reinspected the Site and discovered that the capped area had deteriorated and the fence had been removed, resulting in lack of protection of human health and the environment.

1.1 Surface and Subsurface Soil Sample Results:

In June and October of 1999, EPA's contractor URS Operating Services (UOS) conducted soil sampling in areas previously designated by EPA and areas identified by the MDEQ inspection; high levels of PCP were found. PCP concentrations analyzed from surface soil sample results ranged from 0.2 to 10,000 mg/kg.

Soil boring (SB-01) was drilled in the area of the vats to a depth of 76 feet and PCP concentrations ranged from not detected to greater than 100 mg/kg. The highest detection of PCP (10,000 ppm) was collected from the wood chip pile where all of the stained soil, chips, and unwanted debris were piled over years.

PCP was also detected in the soil boring samples collected in the area between the two emptied PCP above ground storage tanks (ASTs), at a concentration of 100 mg/kg at the depth of 36 feet bgs.

1.2 Groundwater Sample Results:

Four groundwater samples including a background sample were collected from existing monitor wells and two newly installed wells in October 1999. The laboratory analysis detected a PCP concentration of 24 µg/L in the groundwater at the depth of 76 feet. All of the detected PCP levels in groundwater exceed the EPA maximum contaminant level (MCL) for PCP in groundwater of 1.0 µg/L. PCP was not detected in the MW-01 (background) and MW-04 monitoring wells.

IV. RESPONSE INFORMATION

A. Situation

1. Removal actions to date

Please refer to POLREPs #1 - 4 for previous removal actions.

On June 10, 2002 the U.S. Army Corps of Engineers mobilized their Rapid Response contractor, Weston Solutions Inc., to conduct soil segregation of the PCP/Dioxin contaminated materials stockpiled in the site Land Treatment Unit (LTU). The stockpiled soil on the approx. one acre surface area LTU was divided into 19 grids for soil sample collection and subsequent analysis, utilizing an on-site gas chromatogram operated by the UOS START2 contractor. The grids were sampled in two foot deep layers to determine the concentration of PCP and total extractable hydrocarbons. The soil sample results were compared to the site clean up goal requirements to determine if the soil could be returned to the south excavation pit, from where they were

excavated, or if the soils needed to undergo bioremediation treatment on the LTU. Site soil cleanup goal requirements are indicated as follows:

Pentachlorophenol		48 ppm
MT-EPH C11-C22	Aromatics	1,400 ppm
MT-EPH C9-C18	Aliphatics	5,000 ppm
MT-EPH C19-C30	Aliphatics	5,000 ppm

Soil segregation activities concluded on 7/25/02. Approximately 7,000 cubic yards of contaminated soils remain on the LTU awaiting treatment. Approximately 7,424 cubic yards of soil were determined to be below cleanup requirements and placed back into the south excavation pit. The 7,424 cubic yards apparently underwent non-enhanced (natural) bioremediation treatment processes during the time the soils were stockpiled on the LTU in the fall of 2000 to the 2002 summer site activities. All equipment and personnel associated with the segregation activities were demobed by 8/2/02. USCOE subcontracted with Corwin Environmental Services of Kalispell, Montana, to conduct bioremediation treatment of the LTU contaminated soils.

Bioremediation treatment activities began on 8/21/02. Treatment activities consist of nutrient enhancement with watering and aeration using a subsoiler plow. Watering and aeration will occur three times a week for an expected 45 day treatment cycle for each two foot layer of soil on the LTU. Approximately six feet of contaminated material remain on the LTU. The first treatment cycle is expected to be completed by 10/18/02. During the week of 10/21/02 the LTU soils will be covered for the winter to prevent wind and water erosion of untreated soils. The LTU will be secured for the winter and treatment activities will begin again in the spring with the return of warmer weather.

Twenty-seven residential potable groundwater wells surrounding the Beaver Wood Products site were analyzed for PCP during 8/28-9/03/01. One residential well, located hydraulically adjacent to the site, contained 0.10 ppb pentachlorophenol (PCP) while all others were non-detect at 0.04 ppb. Three groundwater monitoring wells located within the aerial extent of the historical Beaver Wood Products facility, screened at the top of the unconfined aquifer, were sampled for PCP during 9/15-16/01. Those sample results indicated PCP contamination of 1.4 ppb in the hydraulically down-gradient direction, and 0.81 ppb PCP contamination on the upgradient side, all of which are located within the aerial extent of the historical Beaver Wood Products facility. With regard to the above findings, additional groundwater sampling was performed to protect potentially effected residents. Therefore, seven residential groundwater wells including i) the residential wells where contamination was previously observed, ii) residential wells located within close proximity of contaminated wells, and iii) residential wells within suspected groundwater flow paths, were sampled on 11/7/01. All laboratory results from that sampling event indicated non-detect for PCP at 0.04 ppb (including the well observed on 9/16/01 to contain 0.81 ppb PCP).

A quarterly groundwater monitoring program was implemented which incorporated all wells where PCP had been observed or were perceived to be threatened via groundwater migration. Seven residential potable groundwater wells and five groundwater monitoring wells were therefore sampled during 7/18-19/02 for PCP, with two wells also analyzed for dioxins/furans. Laboratory analysis of those samples indicated all wells were non-detect for PCP at 0.04 ppb. However, groundwater monitoring well BW-MW-06 contained 0.022 ppb (octachloro) Dioxin and 0.008 ppb (pentachloro) Furan. Monitoring well BW-MW-06 is also the hydraulically down-gradient well where 1.4 ppb PCP was observed on 9/16/01.

From 9/5-13/02 an additional 5 ground water monitoring wells were installed on and off-

site of the Beaver Wood Products facility. The purpose of these wells are to better define and assess ground water quality, flow direction and potential impact to off-site receptors. Also during this investigation phase 16 soil borings were completed to sample and analyze soil conditions in and around the North vat area and East pit area as identified on historic aerial photographs of the Beaver Wood Product facility. Soil borings were advanced from depths of 10 to 25 feet. QA/QC validated data is pending for these soil boring samples. The START2 contractor is currently compiling the 2002 analytical data from all site activities and will include the information in 2002 site activity summary reports.

The next quarterly groundwater sampling event which includes monitoring wells and residential wells will occur during October, 2002.

2. Next Steps

- **Close out site activities and secure site for the winter (e.g. demobe treatment equipment, cover LTU).**
- **Conduct quarterly ground water monitoring.**
- **Subcontract/implement surveying of monitoring wells.**
- **Re-mobilize contractor to conduct bioremediation treatment activities in the spring of 2003.**
- **Determine specific future activities to address North vat area and East pit area.**
- **Complete year 2002 site summary activity reports.**

B. <u>Enforcement</u>

Costs will be determined and the Enforcement Specialist and Enforcement Attorney will make recommendations as to the potential for cost recovery.

V. COST INFORMATION

	Budgeted	Cost to Date
USACOE	**$3,077,263**	**$1,879,473**
START	**395,000**	**267,377**
EPA	**400,000**	
Total	**$3,872,263**	